

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

GUADA TECHNOLOGIES LLC, Plaintiff, v. NETFLIX, INC., Defendant.	CASE NO. 2:16-cv-1153-RWS-RSP PATENT CASE
GUADA TECHNOLOGIES LLC, Plaintiff, v. PANDORA MEDIA, INC., Defendant.	CASE NO. 2:16-cv-1154-RWS-RSP PATENT CASE
GUADA TECHNOLOGIES LLC, Plaintiff, v. SPOTIFY USA INC., Defendant.	CASE NO. 2:16-cv-1159-RWS-RSP PATENT CASE

**PLAINTIFF GUADA TECHNOLOGIES LLC'S COMBINED
OPPOSITION TO DEFENDANTS NETFLIX, INC., PANDORA
MEDIA, INC., AND SPOTIFY USA INC.'S MOTION TO DISMISS**

David R. Bennett
(Illinois Bar No. 6244214)
DIRECTION IP LAW
P.O. Box 14184
Chicago, IL 60614-0184
Telephone: (312) 291-1667
e-mail: dbennett@directionip.com
**ATTORNEY FOR PLAINTIFF
GUADA TECHNOLOGIES LLC**

Dated: January 12, 2017

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS.....	i
TABLE OF AUTHORITIES	iii
TABLE OF EXHIBITS	v
I. INTRODUCTION	1
II. BACKGROUND	3
A. The Patent-in-Suit Addresses Problems Associated with A User Traversing Nodes in a Computerized Hierarchically Arranged Decisional Network.....	3
1. The Claims of the ‘379 Patent	5
2. The Prosecution History Explains that the Claims Address Problems Navigating Hierarchically Arranged Decisional Networks	7
a. The Prior Art Raised in the First Office Action Did Not Address Hierarchical Networks of Navigable Nodes, Associating Keywords with Nodes, or Jumping to Nodes	7
b. In response to the Final Office Action, Applicant Explained “Jumping” to Nodes and Distinguished the Prior Art as Not Disclosing a Hierarchical Network or Navigating Networks	8
c. Appeal Briefing.....	9
B. Claim Construction Issues	10
1. “A System Having Multiple Navigable Nodes Interconnected in a Hierarchical Arrangement” and “An Arrangement of Nodes Representable as a Hierarchical Graph Containing Vertices and Edges Connecting at Least Two of the Vertices”	10
2. “Jumping”	12
3. “Jumping to the At Least One Node” and “Jumping to the Vertex”	12
III. STATEMENT OF THE LAW	13
A. Motions for Judgment on the Pleadings Are Viewed with Disfavor	13

B. Patent Eligibility under 35 U.S.C. §10114

C. Computer Software Applications Are Patent Eligible Under §10116

IV. ARGUMENT 17

A. The Claims in the Patent-in-Suit do not Recite an Abstract Idea17

1. Independent Claims 1 and 7 of the ‘379 Patent Are Directed to Improved Computer Functionality and Not an Abstract Idea..... 18

2. Dependent Claims 2-6 of the ‘379 Patent Add Further Inventive Concepts to the Independent Claims..... 20

3. Defendants’ Alleged Abstract Ideas Ignore the Claim Language 21

4. The Claims Are Distinguishable from Cases Found by the Courts to be Directed to an Abstract Idea..... 23

a. The Claims Are Not Directed to Information Management 23

b. The Claims Specify Implementation Details for the Steps and are Not Result Oriented..... 24

c. The Claimed Invention Does Not Perform a Well-Known Concept Such as Looking Up Terms in a Textbook Index 25

d. The Claims Do Not Require a Reference to Hardware..... 26

B. The Claims Have Material, Non-Generic Limitations that Render the Claims Patent Eligible Under §101.....27

CONCLUSION..... 29

TABLE OF CITATIONS

	Page(s)
Cases	
<i>Alice Corp. Pty. Ltd. v. CLS Bank Int'l</i> , 573 U.S. ___. 134 S.Ct. 2347 (2014).....	passim
<i>Bancorp Services v. Sun Life Assur. Co. of Canada</i> , 687 F. 3d 1266 (Fed.Cir. 2012).....	14
<i>Bascom Global Internet Serv. v. AT&T Mobility LLC</i> , 827 F.3d 1341 (Fed.Cir. 2016).....	3, 16, 29
<i>Bilski v. Kappos</i> , 561 U.S. 593 (2010).....	17
<i>California Inst. of Tech. v. Hughes Comm., Inc.</i> , 2014 U.S. Dist. WL 5661290 (C.D. Cal. Nov. 3, 2014).....	13, 14
<i>Campbell v. Wells Fargo Bank</i> , 781 F.2d 440 (5th Cir. 1986)	13
<i>DDR Holdings, LLC v. Hotels.com</i> , 773 F.3d 1245 (Fed.Cir. 2014).....	passim
<i>Enfish, LLC v. Microsoft Corp.</i> , 822 F.3d 1327 (Fed.Cir. 2016).....	passim
<i>Internet Patents Corp. v. Active Network, Inc.</i> , 790 F.3d 1343 (Fed.Cir. 2015).....	15
<i>Kaiser Aluminum & Chem. Sales v. Avondale Shipyards</i> , 677 F.2d 1045 (5th Cir. 1982)	13
<i>Lowery v. Texas A&M Univ. Sys.</i> , 117 F.3d 242 (5th Cir. 1997)	13
<i>Mayo Collaborative Services v. Prometheus Laboratories, Inc.</i> , 566 U.S. ___, 132 S.Ct. 1289 (2012).....	15
<i>McRO, Inc. v. Bandai Namco Games Am. Inc.</i> , 837 F.3d 1299 (Fed.Cir. 2016).....	passim
<i>McZeal v. Sprint Nextel Corp.</i> , 501 F.3d 1354 (Fed.Cir. 2007).....	13
<i>Parker v. Flook</i> , 437 U.S. 584 (1978).....	17
<i>Phonometrics, Inc. v. Hospitality Franchise Systems</i> , 203 F.3d 790 (Fed.Cir. 2000).....	13
<i>Rockstar Consortium US LP, Inc. v. Samsung Electronics Co., Ltd.</i> , 2014 WL 1998053 (E.D. Tex. May 15, 2014).....	14

Rockstar Consortium US LP, Inc. v. Samsung Electronics Co., Ltd.,
Case No. 2:13-cv-894, Dkt. No. 75 (E.D. Tex. July 21, 2014) (Gilstrap, J.) 14

Synopsys, Inc. v Mentor Graphics Corp.,
839 F.3d 1138 (Fed.Cir. 2016)..... 27

Statutes

35 U.S.C. §101 14, 16, 17, 29

Rules

Rule 12(b)(6), Fed.R.Civ.P. 13

TABLE OF EXHIBITS

Exhibit A	United States Patent No. 7,231,379
Exhibit B	Excerpt of Appendix attached to Application No. 10/299,359
Exhibit C	Office Action in Application No. 10/299,359 ('379 patent) dated June 4, 2004
Exhibit D	Response to Office Action in Application No. 10/299,359 dated June 4, 2004 dated September 3, 2004
Exhibit E	Final Office Action in Application No. 10/299,359 dated December 3, 2004
Exhibit F	Response After Final Office Action in Application No. 10/299,359 dated January 27, 2005
Exhibit G	Advisory Action in Application No. 10/299,359 dated March 7, 2005
Exhibit H	Applicant Appeal Brief in Application No. 10/299,359 dated May 31, 2005
Exhibit I	Appeal Non-Final Rejection in Application No. 10/299,359 dated August 24, 2005
Exhibit J	Reply Appeal Brief in Application No. 10/299,359 dated October 19, 2005
Exhibit K	Statement of Non-Compliance in Application No. 10/299,359 dated October 2, 2006
Exhibit L	Response to Statement of Non-Compliance in Application No. 10/299,359 dated November 2, 2006
Exhibit M	Notice of Allowance in Application No. 10/299,359 dated January 25, 2007
Exhibit N	Supplemental Notice of Allowance in Application No. 10/299,359 dated March 30, 2007

Plaintiff Guada Technologies LLC (“Guada Technologies”) hereby files this Combined Opposition to Defendants Netflix, Inc., Pandora Media, Inc., and Spotify USA Inc.’s Motion to Dismiss (C.A. 2:16-cv-1153, -1154, -1159 each at Dkt. No. 13) (collectively “§101 Motions”). Pursuant to LR CV-7(g), Guada Technologies respectfully requests an oral hearing.

I. INTRODUCTION

The claims of U.S. Patent No. 7,231,379 (“the ‘379 patent”) are directed to a very particular technology setting: addressing a problem of users navigating network nodes in a computerized hierarchically arranged decisional network that must be navigated by a user as part of the processing, and that is also constructed to accept user inputs or data for navigation. (Ex. A¹ at col. 2:25-30; Ex. H at 2). The object of navigating the system is to get the user from one node (usually starting with the first node) of the system to the goal node as quickly and efficiently as possible. (*Id.* at col. 2:9-12). A simple example of the hierarchically arranged decisional network is the telephone decisional network in which users responded to specific prompts (press 1 for Hardware, press 2 for Lumber, press 3 for paint, etc.) to proceed to the next node. Prior art systems required users to navigate the nodes in set pathways that made it difficult and time consuming for a user to reach goal nodes. (*Id.* at col. 2:10-18). For example, if a user was in a such a network and realized that the user had proceeded down the wrong path, the only options were to go back up the path previously traveled, or start over. (Ex. H at 2-3).

Recognizing the problems in the prior art, the inventors of the ‘379 patent developed a method in which a user can navigate a computerized hierarchically arranged decisional network in a way that allows the user to skip from one node to another node that may be many rows down the network where the nodes are not be connected together adjacently. (*Id.* at col. 3:29-34). This

¹ Ex. A - N refer to the exhibits attached to the supporting Declaration of David R. Bennett.

can be accomplished by associating each node with one or more descriptions (or prompts), and matching words in users' requests and responses with those descriptions to enable the selection of nodes that may not be directly connected to the user's current location in the hierarchically arranged decisional network. (*Id.* at col. 3:35-43).

Defendants' §101 Motions ignore the problem recognized by the inventors with navigating prior art user-interactive hierarchically arranged decisional networks, which did not exist prior to automated responsive computer systems. *DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245, 1257 (Fed.Cir. 2014). Specifically, the "claims are directed to a specific implementation of a solution to a problem in the software arts," and therefore are "not directed to an abstract idea." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed.Cir. 2016) (*citing Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347, 2354 (2014)); *DDR Holdings*, 773 F.3d at 1257. Here, the claims are not directed to an abstract idea because "the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other task for which a computer is used in its ordinary capacity." *Enfish*, 822 F.3d at 1336.

Furthermore, Defendant's abstract idea is also inapplicable to the claims because it fails to address the problem solved by the claims of the patent-in-suit. For example, "using a keyword to navigate a hierarchy" would simply result in navigating using words to adjacent nodes in the flawed manner used in the prior art, rather than jumping to unconnected nodes associated with keywords as required by the claims.

Even if the Court were to find that Defendants' alleged abstract idea is applicable to the claims in the patent-in-suit, Defendants' analysis of this second step likewise fails to follow Federal Circuit precedent requiring analysis of the claim limitations individually and as an ordered combination. *Bascom Global Internet Serv. v. AT&T Mobility LLC*, 827 F.3d 1341,

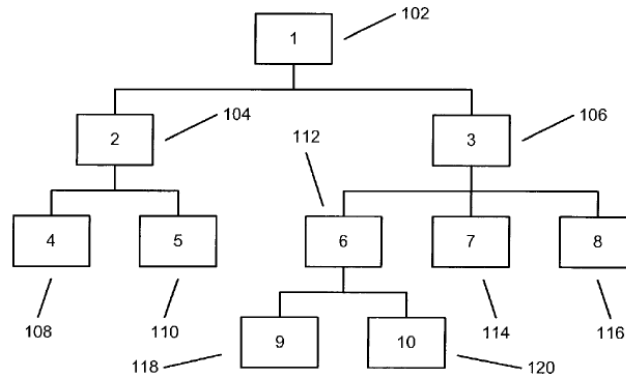
1349-50 (Fed.Cir. 2016). Merely stating that the limitations are known in the prior art or can be performed on general purpose computers, as Defendants do, is insufficient to fail the second step because “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Id.* at 1350; *Enfish*, 822 F.3d at 1338. When the claims are correctly analyzed, the claims have material, non-generic limitations, including a particular functionality and arrangement for a computerized hierarchically configured decisional network that must be navigated as part of the processing and is constructed to accept inputs or data and process them in a manner that facilitates navigation of the network nodes more efficiently. The Court should therefore deny Defendants’ §101 Motion.

II. BACKGROUND

Guada Technologies owns all right, title, and interest in U.S. Patent No. 7,231,379 (“the patent-in-suit” or “the ‘379 patent”). (Dkt. No. 1 at ¶10; Ex. A). Guada Technologies filed a patent infringement suit against each Defendant in the E.D. Texas on October 14, 2016, accusing each Defendant of infringing claims of the ‘379 patent. (Dkt. No. 1).

A. The Patent-in-Suit Addresses Problems Associated with A User Traversing Nodes in a Computerized Hierarchically Arranged Decisional Network

The ‘379 patent issued on June 12, 2007 and is based on a patent application filed on November 19, 2002. (Ex. A at cover). The invention claimed in the ‘379 patent is a method implemented in a programmed computer with a hierarchically arranged decisional network that must be navigated as part of the processing and is constructed to accept inputs/data from users and process them in a manner that facilitates navigation of the network nodes more efficiently. (*Id.* at col. 2:25-30; col. 3:5-28). A hierarchically arranged decisional network is an arrangement of nodes (numbered boxes in figure below) connected by edges (lines connecting boxes) that are used to traverse from one node to another node through decisions at a particular node:



The object of navigating the system is to get from the start to the desired node quickly and efficiently. (*Id.* at col. 2:9-12). This system is different from a “circuit” or “cycle” in which edges can loop back on themselves to create a closed path. (*Id.* at col. 2:67 – col. 3:3).

To navigate a hierarchically arranged decisional network, a user provides responses to prompts or inputs data to navigate up or down through adjacent nodes in the hierarchical arrangement to reach a certain node to obtain information, perform a transaction,² or reach a goal node. (*Id.* at col. 2:22-25; col. 3:5-28). For example, an interactive television program guide can be arranged as a hierarchically arranged decisional network. A user starts at the first node with a selection between films and shows. (*Id.* at Fig. 4). Upon the selection of films, the user is presented with another set of nodes to select such as genres of films (*e.g.*, comedies, horror, drama). The user could then continue navigating down nodes until the goal node is reached.

This method of navigating through specific pathways between nodes is inefficient. For example, if the user navigates down several nodes before realizing that the user is in the incorrect hierarchy, the user must either navigate back up the nodes or start from the beginning. (Ex. H at 2-3). Such limited navigation can cause users to quickly become frustrated and give up. (*Id.* at col. 2:9-12). As networks become larger with more node levels, the ability to achieve the goal

² The term “transaction” as used herein relating to traversal through a hierarchy to a goal, not mathematical calculation per se. (Ex. A at col. 5:20-22).

node becomes even more difficult because it requires an excessive number of nodes to achieve the desired goal, and can discourage users before the goal is reached. (*Id.* at col. 2:15-18).

The invention solves the problems of the prior art by not locking the user into movement up or down from node to adjacent node, or having to start over at the top node. Instead, the invention allows users to “jump” laterally from one branch to another if the user navigates to a wrong branch of the network or if the user changes the intended goal. (*Id.* at col. 3:35-37). The problem is solved by supplementing the allowed movement between adjacent nodes with navigation by matching words in a user’s request/response to keywords associated with non-adjacent nodes so that the user can jump to nodes within the network that are not directly connected to the user’s current location. (*Id.* at col. 3:35-43). In other words, “the user is not bound by the rigid hierarchical arrangement because an input or response can cause a direct jump to a different node, thereby bypassing intervening nodes that would otherwise need to be traversed according to approaches of the prior art.” (Ex. H at 3).

1. The Claims of the ‘379 Patent

The ‘379 Patent has two independent claims:

1. A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:
 - at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,
 - identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and
 - jumping to the at least one node.
7. A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and jumping to the vertex.

(Ex. A at col. 22:47-57, col. 23:11 – col. 24:11). The invention addresses the then-existing problem of navigating a hierarchically arranged decisional network that accept inputs or data from users to navigate nodes/vertices in the network. The method starts with a computerized system of multiple nodes interconnected in a hierarchically arranged decisional network in which a user provides inputs/responses at each node to navigate through adjacent nodes in the hierarchical arrangement. (*Infra* §II.B). The nodes/vertices are also associated with keywords. A user provides a word input at a first node.³ The system identifies a node associated with the keyword that is not connected to the first node. The system then jumps to the unconnected node associated with the keyword. The patentee defined “jumping” as a direct traversal from one node to another node that is not directly connected to it (*i.e.*, without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex). (*Infra* §II.B.2).

Dependent claims 2, 3, and 5 depend directly from claim 1. (*Id.* at col. 22:58-62, col. 23:1-6). Claim 2 additionally requires that the user provide a “verbal description” for a node. This is exemplified through the examples of telephone-based hierarchically arranged decisional networks. (*E.g.*, *id.* at col. 3:49-58). Claim 3 requires searching a thesaurus correlating key

³ Claim 7 is narrower than claim 1 because it requires that at the first node the user is responding to a verbal description.

words to synonyms. This allows users to more efficiently traverse to the goal node without having to guess specific keywords associated with the node. (*E.g., id.* at col. 8:33-56). Claim 4 depends from claim 3 and additionally requires identifying a synonym as a keyword. Claim 5 requires that if an entered word is not a keyword or synonym, the meaning for the word is learned by the system so that it can be treated as a synonym for at least one keyword. Claim 6, which depends from claim 5, requires that the new word is added to a thesaurus so that the word will be treated as a synonym for at least one keyword.

2. The Prosecution History Explains that the Claims Address Problems Navigating Hierarchically Arranged Decisional Networks

The application leading to the '379 patent was filed on November 19, 2002. (Ex. A at cover). Claims 1-7 were not amended during prosecution and therefore issued as filed. In support of the application, the inventions submitted an appendix with over 100 pages of code and data files as an exemplary implementation of the invention. (*e.g.,* Ex. B). The prosecution explains that the claimed invention is directed to a particular type of network, the problem in the prior art systems solved by the invention, and the importance of the construction of “jumping.”

a. The Prior Art Raised in the First Office Action Did Not Address Hierarchical Networks of Navigable Nodes, Associating Keywords with Nodes, or Jumping to Nodes

In the first office action, the examiner objected to the language “jumping to at least one node” (claim 1) and “jumping to the vertex” (claim 7) as unclear. (Ex. C at 3). Claims 1-7 were also rejected as obvious over Lin (U.S. Patent No. 6,675,159)⁴ in view of Thiesson (U.S. Patent No. 6,408,290). For claims 1 and 7, the examiner contended that Lin taught every limitation except “not directly connected to the first node but is associated with the at least one keyword,

⁴ The Office Action incorrectly referred to the Lin patent as 6,676,159 in the examiner's rejection section. (Ex. D at 3).

and jumping to the at least one node.” (*Id.* at 4). The examiner argued that Thiessen taught the missing limitation and that the motivation to modify Lin using Thiessen was Thiessen provides an “improved collaborative filtering system.” (*Id.*).

In response to the first office action, applicant argued that Lin and Thiessen are directed to Bayesian causal networks,⁵ rather than a hierarchically arranged decisional network. (Ex. D at 6-7). Furthermore, neither Lin nor Thiessen “provides for anything more than direct traversal along a path of connected nodes” and did not disclose jumping between nodes. (*Id.* at 5-7).

b. In response to the Final Office Action, Applicant Explained “Jumping” to Nodes and Distinguished the Prior Art as Not Disclosing a Hierarchical Network or Navigating Networks

In the next office action, the examiner continued the objection that “jumping” is not clearly defined in the specification. (Ex. E at 2). Applicant explained that the term “jumping” is defined both explicitly and implicitly in the specification by identifying and quoting several portions of the specification. (Ex. F at 4-6). Applicant also explained the problems with traversing prior art hierarchical networks, which did not apply to Bayesian networks:

If one looks at the simplified hierarchical network application [patent] FIG. 1 (which is generic to the various specific applications described in the application where such a network could be used), according to the prior art, if one were to navigate through the graph, one would always start at the box labeled “1”. To get to the box labeled “5”, one would have to navigate from box “1” to box “2” to box “5”. If it turned out that the user’s intended goal really should have placed them at box “7”, they would have to back-navigate from box “5” to box “2” to box “1” then to box “3” and finally to box “7”.

(*Id.* at 6-7). Applicant then explained the improved operation of the claimed invention:

In contrast, with the same example, if the user had navigated to box “5” but the intended goal would have placed them at box “7”, through use of the invention of claim 1 or claim 7, the “at least one keyword” (claim 1) or

⁵ A Bayesian network is a graphical model of variables that represents how changes to one variable affects other interconnected variables. (*See* Ex. H at 10-11, 12; Ex. F at 8-9).

the “meaningful term” (claim 7) makes it possible for the system to know, in response to the user's input, that the intended goal would place the user at box “7” and it would cause a direct jump from box “5” to box “7” without traversal through a path containing any of the boxes in between even though there is no direct connection between box “5” and box “7”!

(*Id.* at 7).

c. Appeal Briefing

After an advisory action in which the examiner affirmed the final rejection, the applicant filed an appeal brief. (Ex. G, Ex. H). Applicant explained that the invention related to hierarchically arranged systems such as interactive voice response systems, interactive television program listing systems, geographic information systems, and automated voice response systems. (Ex. H at 2). Applicant argued that the claimed invention solved the inadequacies of prior art navigation of hierarchically arranged decisional networks by “allowing the user to ‘jump’ from one node in the hierarchy to another node that is not directly connected to that node, without having to traverse through every intervening node in the path.” (*Id.* at 3 (*citing* Ex. F at 6-7)). By implementing the claimed invention, “the user is not bound by the rigid hierarchical arrangement because an input or response can cause a direct jump to a different node, thereby bypassing intervening nodes that would otherwise need to be traversed according to approaches of the prior art.” (*Id.*). Applicant then defined “jumping” (as disclosed explicitly and implicitly in the specification) as “a direct traversal from one node or vertex to another node or vertex that is not directly connected to it (i.e., without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex).” (*Id.*). Applicant reiterated the arguments that Thiessen and Lin disclosed the wrong type of network and did not disclose “jumping.” (*Id.* at 9-10, 13-14).

In response to the applicant’s appeal brief, the examiner sought to reopen the prosecution by rejection the claims as obvious over Lin in view of Pooser (U.S. Patent No. 5,812,134). (Ex. I

at 3-4). The examiner argued that Pooser disclosed jumping by “allow[ing] the user to skip any part of the thread, return to a previous node (or element), or jump to a related node on another thread.” (*Id.* at 4).

Applicant filed an appeal reply brief explaining that Pooser disclosed a user, not a system, selecting nodes within a hierarchical structure and it does not use keywords. (Ex. J at 9). In Pooser, the user is aware of all available nodes and, in view of the graphical display of the entire hierarchical structure, the user navigates by selecting the desired node in the hierarchical structure from the display of the entire structure. (*Id.*). The system therefore does not jump to the node. (*Id.* at 9-10). In contrast, in the claimed invention a user “presently located at an individual node gives the system an input, from that input either (i) a keyword association occurs and, as a result, the system then jumps the user to a node associated with the at least one keyword of the systems selection (claim 1) or (ii) a ‘meaningful term’ is identified from the input and then the system jumps the user ‘based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex’ (claim 7.)” (*Id.* at 10). The examiner allowed all pending claims. (Ex. K, Ex. L; Ex. M; Ex. N).

B. Claim Construction Issues

There are at least three claim terms in the ‘379 patent that require construction prior to addressing patent-eligible under §101. These terms demonstrate that the claims are not directed to an abstract idea and also have an inventive concept.

1. “A System Having Multiple Navigable Nodes Interconnected in a Hierarchical Arrangement” and “An Arrangement of Nodes Representable as a Hierarchical Graph Containing Vertices and Edges Connecting at Least Two of the Vertices”

The term “a system having multiple navigable nodes interconnected in a hierarchical arrangement,” in claim 1, means “a computerized system of multiple nodes interconnected in a

hierarchically arranged decisional network in which a user provides inputs or responses at each node to navigate through adjacent nodes in the hierarchical arrangement.” Similarly, the term “an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices” in claim 7 means “a computerized arrangement of nodes arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices in which a user provides inputs or responses at each node to navigate through adjacent nodes in the hierarchical arrangement.”

The specification explains that the invention particularly relates to “computer based transaction processing.” (Ex. A at col. 1:7-8). All the hierarchical networks described in the specification are automated, computer-based systems. (*e.g.*, *Id.* at col. 1:40-65; col. 2:41-52; col. 5:52-55; col. 6:66-67; col. 8:8-10; Figs. 3-6). For example, these systems were interactive voice response systems, interactive television program listing systems, geographic information systems, and automated voice response systems, which are all computerized systems having multiple nodes in which users input information to navigate the systems. (Ex. H at 2; Ex. A at Figs. 3-6). The patent also describes the relevant network as a hierarchically arranged decisional network. (Ex. A at col. 2:25-30 (“The invention is implemented in a programmed computer that has a hierarchically configured decisional network...”); col. 4:18-21 (“The underlying scenario common to all these basic examples is that there is a hierarchically arrangement to the possible choices that can be illustrated in a form of ‘tree’ structure.”), col. 4:22-24, Fig. 1).

During the prosecution history and in the specification, the applicant stated that hierarchically arranged networks were in the prior art. (Ex. A at col. 3:5-28; col. 5:49-51; Ex. F at 8). These were computerized systems in which the nodes were interconnected in a hierarchical arrangement in which a user navigates through the hierarchy through an iterative

process at each node of presenting information or querying the user and the user's response causes the system to navigate to an adjacent node. (Ex. H at 2; Ex. J at 2; Ex. L at 2; Ex. F at 6-8). Applicant explained that the invention was a method implemented on this system. (Ex. A at col. 3:5-9; Ex. H at 2-3; Ex. J at 3-4; Ex. F at 6-7). Defendants' contention that the invention is directed to navigating any hierarchy, rather than a particular hierarchically arranged decisional network required by the claims, is therefore incorrect.

2. "Jumping"

"Jumping," in both independent claims 1 and 7, should be construed to mean "a direct traversal from one node or vertex to another node or vertex that is not directly connected to it (*i.e.*, without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex)." During the prosecution history, applicant argued that this definition of jumping is disclosed explicitly and implicitly in the specification. (Ex. H at 3; Ex. J at 4; *also* Ex. F at 4-6 (citing portions of the specification (Ex. A at col. 5:7-12; col. 2:38-40, col. 3:35-43, col. 5:43-44, col. 6:25-26, col. 8:5-10, col. 9:59-61, col. 12:31-34, 49-56, col. 14:7-14))). As discussed extensively during the prosecution history, the "jumping" term, as defined above, was a point of novelty that distinguished the claimed invention from the prior art. (*Id.*). Defendants' contention that the invention is directed to navigating a hierarchy without referencing the required jumping between nodes is therefore incorrect.

3. "Jumping to the At Least One Node" and "Jumping to the Vertex"

"Jumping to the at least one node" (in claim 1) and "jumping to the vertex" should be construed to mean "the system jumping to the at least one node" and "the system jumping to the vertex." The claim language is directed to an invention that is performed "in a system." (Ex. A at col. 22:47-49; *also* col. 24:3-4). The claim requires that the system "at a first node, receive an

input from a user of the system,” the system “identifying at least one node,” and the system “jumping to the at least one node.” (Ex. A at col. 22:50-51, 54, 57). The prosecution history also explains that it is the system that ignores the hierarchy and jumps to nonadjacent nodes. (Ex. J at 4). The invention was also distinguished over the prior art Pooser patent in which the user could select the node to navigate to rather than the system selecting the jumped to node. (Ex. J at 9-10). Applicant also explained that “the system then jumps the user to a node” associated with a keyword (claim 1) and “the system jumps the user ‘based on an association between the meaningful term...’ (claim 7).” Defendants’ references to a “user” jumping between nodes, rather than the system jumping between nodes, is therefore incorrect.

III. STATEMENT OF THE LAW

A. Motions for Judgment on the Pleadings Are Viewed with Disfavor

Regional circuit law applies to Rule 12(b)(6) motions to dismiss for failure to state a claim. *McZeal v. Sprint Nextel Corp.*, 501 F.3d 1354, 1356 (Fed.Cir. 2007). The Fifth Circuit Court of Appeals has summarized the standard for deciding a Rule 12(b)(6) as follows:

A motion to dismiss under rule 12(b)(6) “is viewed with disfavor and is rarely granted.” *Kaiser Aluminum & Chem. Sales v. Avondale Shipyards*, 677 F.2d 1045, 1050 (5th Cir. 1982). The complaint must be liberally construed in favor of the plaintiff, and all facts pleaded in the complaint must be taken as true. *Campbell v. Wells Fargo Bank*, 781 F.2d 440, 442 (5th Cir. 1986).”

Lowery v. Texas A&M Univ. Sys., 117 F.3d 242, 247 (5th Cir. 1997) (citations omitted); *see Phonometrics, Inc. v. Hospitality Franchise Systems*, 203 F.3d 790, 793-794 (Fed.Cir. 2000).

Although ineligibility under §101 is a question of law, it is “rife with underlying factual issues.” *California Inst. of Tech. v. Hughes Comm., Inc.*, 2014 U.S. Dist. WL 5661290 at *5 n. 6 (C.D. Cal. Nov. 3, 2014). Furthermore, “it will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a §101 analysis, for the determination of patent

eligibility requires a full understanding of the basic character of the claimed subject matter.” *Bancorp Serv. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266, 1273-74 (Fed.Cir. 2012). A dismissal under §101 is thus only appropriate “when the only plausible reading of the patent is that there is clear and convincing evidence of ineligibility.” *Calif. Inst. of Tech.*, 2014 U.S. Dist. WL 5661290 at *5 n. 6; *Rockstar Consort. US LP, Inc. v. Samsung Elects. Co., Ltd.*, 2014 WL 1998053 at *3 (E.D. Tex. May 15, 2014).

B. Patent Eligibility under 35 U.S.C. §101

Section 101 defines patent eligible subject matters as follows:

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”

35 U.S.C. §101. There are only three exceptions that are excluded from patent eligible subject matter under §101: Laws of nature, natural phenomena, and abstract ideas. *Alice*, 134 S.Ct. at 2354. However, all inventions in effect embody, use, or apply laws of nature, natural phenomena, or abstract ideas so an invention is not patent-ineligible only because it involves an abstract concept. *Id.* Although patenting a building block of ingenuity would risk disproportionately tying up the use of the underlying ideas, integrating the building blocks into something more “pose[s] no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws.” *Id.* at 2354-55.

The §101 analysis uses a two-step process to determine whether the claims are patent-ineligible concepts. *Id.* at 2355. The first step “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice Corp.*, 134 S.Ct. at 2355. “The ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Internet*

Patents Corp. v. Active Network, Inc., 790 F.3d 1343, 1346 (Fed.Cir. 2015). Therefore, the Court must consider the claims as a whole, in light of the specification, focusing on the claimed advance over the prior art.

The Federal Circuit recently held in a software patent case that the inquiry in the first step is “whether the focus of the claims is on the specific asserted improvement in computer capabilities... or instead, on a process that qualifies as an ‘abstract idea.’” *Enfish*, 822 F.3d at 1335-1336. In the first step of the analysis, it is improper to “describ[e] the claims at such a high level of abstraction and untethered from the language of the claims [because it] all but ensures that the exceptions to § 101 swallow the rule.” *Id.* at 1337 (citing *Alice*, 134 S.Ct. at 2354). The Court therefore should not oversimplify the claim limitations and downplay the invention’s benefits. *Id.* If “the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity,” then the claims are not directed to an abstract idea. *Id.* at 1336.

If the Court finds that the patent is not directed to a patent ineligible concept, *i.e.*, the patented invention is not an abstract idea, then the analysis ends and the §101 motion must be denied. *Id.* at 1339. If, however, the Court finds that the patented invention is directed to a patent-ineligible concept, then the Court turns to the second step and “examine[s] the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice Corp.*, 134 S.Ct. at 2357 (citing *Mayo Collaborative Serv. v. Prometheus Labs., Inc.*, 566 U.S. ___, 132 S.Ct. 1289, 1294, 1298 (2012)). Under the second step, even if an invention recites an abstract idea, the invention is patentable if it has additional features to ensure that the claim is more than drafted to monopolize an abstract idea. *Id.* When considering the inventive concept of claim limitations, the limitations

must be considered both individually and as an ordered combination. *Alice Corp.*, 134 S.Ct. at 2355. For example, even if the claims only use generic or conventional pieces, “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Bascom*, 827 F.3d at 1350.

C. Computer Software Applications Are Patent Eligible Under §101

Defendants’ brief implies that claims directed to software applications are unpatentable under §101. This has been rejected in at least three recent Federal Circuit cases. First, software claims are not inherently abstract. *Enfish*, 822 F.3d at 1335. “Software can make non-abstract improvements to computer technology just as hardware improvements can,...” and does not automatically fail the first step of the §101 analysis. *Id.* In *DDR Holdings*, the Federal Circuit held that software claims are not abstract if “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” 773 F.3d at 1257. In both cases, the software claims were held to be patent eligible when they improve the ways computer operated and do not recite a mathematical algorithm, a fundamental economic or business practice. *Id.*; *Enfish*, 822 F.3d at 1339. Second, even if the claims use only generic or conventional computers, software claims are directed to patentable subject matter if the claims do not preempt the alleged abstract idea on the Internet or on generic computer components performing conventional activities. *Bascom*, 827 at 1350-51.

The Federal Circuit recently reinforced that software claims are patentable stating that “processes that automate tasks that humans are capable of performing are patent eligible if properly claimed.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed.Cir. 2016). The Court held that the novelty was the incorporation of the claimed rules, rather than the use of the computer, that improved the existing technological process by allowing automation of further tasks. *Id.* at 1314. Although the rules used generic computers, there was

“no evidence that the process previously used by animators is the same as the process required by the claims.” *Id.* The Court distinguished *McRo* from *Alice*, *Parker v. Flook*, 437 U.S. 584 (1978), and *Bilski v. Kappos*, 561 U.S. 593 (2010), in which the “claimed computer-automated process and the prior art method were carried out in the same way.” *Id.* at 1314-15.

IV. ARGUMENT

Defendants’ §101 Motions should be denied because, when the facts are liberally construed in Guada Technologies’ favor, Defendants do not satisfy their high burden of proving invalidity by clear and convincing evidence. First, Defendants’ alleged abstract idea of “a keyword to navigate a hierarchy” is improper because it is “at such a high level of abstraction and untethered from the language of the claims.” *Enfish*, 822 F.3d at 1337; (Dkt. No. 13 at 1).

When the claim language is correctly analyzed, the claimed methods and systems are directed to an improved method of navigating a computerized system of multiple nodes interconnected in a hierarchically arranged decisional network in which a user provides inputs or responses at each node to navigate through adjacent nodes in the hierarchy. *McRO*, 837 at 1314 (improving upon the prior art using a process that was not performed in the prior art is patentable). Second, even if the Court were to find that the claims are directed to an abstract idea, the claims of the patent-in-suit have additional features, including the system jumping to nonadjacent nodes in a computerized hierarchically arranged decisional network, to ensure that the claims are more than drafted to monopolize an abstract idea.

A. The Claims in the Patent-in-Suit do not Recite an Abstract Idea

The claimed inventions are patent eligible under §101 because they do not recite an abstract idea. The first step in a §101 analysis is to “determine whether the claims at issue are directed to one of [the] patent-ineligible concepts.” *Alice Corp.*, 134 S.Ct. at 2355. In the context of computer software, the Federal Circuit recently held that the inquiry in the first step is

“whether the focus of the claims is on the specific asserted improvement in computer capabilities... or instead, on a process that qualifies as an ‘abstract idea.’” *Enfish*, 822 F.3d at 1335-36. In this case, the claims are directed to improved computer functionality and do not recite a mathematical algorithm, an economic practice, a pre-computer business practice. *Id.* at 1336; *DDR Holdings*, 773 F.3d at 1257; *McRO*, 837 F.3d at 1314. The claims are therefore patent-eligible because they are rooted in a particular computer technology that necessarily requires a computer system. *Enfish*, 822 F.3d at 1336.

The specification of the patent-in-suit and the prosecution history describe problems specifically found in the realm of computer technology that are solved by the claimed methods. (*E.g.*, Ex. A at col. 1:7-8, 46-65, col. 2:3-5, 25-30, 35-37, 41-52, col. 3:5-9, Figs. 1, 3-6; Ex. D at 5-6; Ex. F at 6-7; Ex. H at 3). The problems are solved through the claimed improved navigation in a computerized hierarchically arranged decisional network that must be navigated by a user as part of the processing, and that is also constructed to accept user inputs or responses for navigation. (Ex. A at col. 2:9-16, 25-30).

1. Independent Claims 1 and 7 of the ‘379 Patent Are Directed to Improved Computer Functionality and Not an Abstract Idea

Independent claims 1 and 7 of the ‘379 patent are generally directed to methods for improved navigation in a computerized hierarchically arranged decisional network that must be navigated by a user as part of the processing, and that is also constructed to accept user inputs or data for navigation. (Ex. A at col. 2:9-16; *supra* §§II.A, II.A.2.c). Prior art computerized hierarchically arranged decisional networks previously locked users into navigating by making a series of choices, or inputs, to navigate up or down through adjacent nodes in the hierarchical arrangement to reach a certain node. (*Id.* at col. 2:22-25). A user was not allowed to skip any nodes and, if the user had navigated down several nodes before realizing that the user is in the

incorrect hierarchy, the user must either navigate back up the nodes or start over. (Ex. H at 2-3). For larger hierarchically arranged systems, it was difficult and time consuming to reach a goal node. (*Id.* at col. 2:10-18). This was inefficient navigation that could cause users to quickly become frustrated and give up, thereby losing the user. (*Id.* at col. 2:9-12).

This is a problem specific to computerized hierarchically arranged decisional networks. Defendants do not consider that the prior art method for navigating these networks locked user's movements. The inventor developed an invention that supplemented the prior art navigation with a new method to navigate a hierarchically arranged decisional network in a way that allows the user to skip from one node to another node that may be many rows down the network and/or where the nodes may not be connected together adjacently. (*Id.* at col. 3:29-34).

Defendants oversimplify the claims and disregard claim language by contending that the claims simply "receiv[e] input containing a keyword, identify[] a node associated with that keyword, and 'jumping to the at least one node.'" (Def'ts Br. at 9). First, the claims require a computerized system of multiple nodes interconnected in a hierarchically arranged decisional network in which a user provides inputs or responses at each node to navigate through adjacent nodes in the hierarchical arrangement. (*Infra* §II.B.1). The nodes/vertices in the network must also be associated with keywords, which is not typical with a decisional network in which navigation is performed by user responses at nodes to determine the navigational direction up or down to an adjacent node. A user provides an input at a first node that must contain at least one word identifiable with a keyword. The system then identifies a node associated with the keyword that is not connected to the first node/vertex. The system then jumps, as defined above, to the unconnected node associated with the keyword. (*Infra* §§II.B.2, II.B.3). Claim 7 further requires that the system provides a verbal description to which the user responds with an input or

response. (Ex. A at col. 24:3-4). These methods are directed to patent eligible subject matter because they require a specific type of system for implementation and improve a method for navigating that system which counters the inefficiencies of the prior art navigation methods. *See Enfish*, 822 F.3d at 1337 (“our conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification’s teachings that the claims invention achieves other benefits over conventional databases....”); *McRO*, 837 F.3d at 1314. The improvement over the prior art method of navigating a hierarchically arranged decisional network is supported by the specification and prosecution history. (*E.g.*, Ex. A at col. 2:9-18; Ex. D at 5-6; Ex. F at 6-7; Ex. H at 3); *see Enfish*, 822 F.3d at 1337; *McRO*, 837 F.3d at 1313.

The specification also addresses the problem solved as one that solely exists with respect to computerized hierarchically arranged decisional networks. (*E.g.*, Ex. A at col. 1:7-8, 46-65, col. 2:3-5, 25-30, 35-37, 41-52, col. 3:5-9, Figs. 1, 3-6). The claims are therefore not directed to a mathematical algorithm, or a fundamental economic or longstanding commercial practice. *DDR Holdings*, 773 F.3d at 1256-1257. The claimed invention is instead directed to patent eligible subject matter because it is “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.* at 1257; *Enfish*, 822 F.3d at 1339 (the claims “are directed to a specific implementation of a solution to a problem in the software arts.”); *also McRO*, 837 F.3d at 1313, 1316.

2. Dependent Claims 2-6 of the ‘379 Patent Add Further Inventive Concepts to the Independent Claims

Defendants’ attack on the dependent claims fails to recognize that the added limitations reinforce the novelty of the invention. The dependent claims are patent eligible because they further narrow the improved method for navigating in the required computerized hierarchically arranged decisional network. The improvements in dependent claims 2-6, which all depend

directly or indirectly from claim 1, are directed to either improving a specific type of hierarchically arranged decisional network, or improving the efficiency of finding goal nodes.

Dependent claim 2 adds to claim 1 the limitation from independent claim 7 in which the hierarchically arranged decisional network provides a verbal description associated with the node where the user is located. (Ex. A at col. 22:58-60). Dependent claims 3 and 4 improve the efficiency of the navigation by increasing the likelihood of finding a relevant node. The methods of claims 3 and 4 do not rely upon keywords associated with nodes and instead correlate words from a thesaurus to keywords. (Ex. A at col. 22:61-63). Dependent claim 5, which depends directly from claim 1, improves the efficiency of the navigation by not relying solely on keywords and synonyms to navigate the system. If the user inputs a word that is neither a keyword or synonym of a keyword, the system learns the meaning of the keyword so that it can be treated as a synonym of one or more keywords. (Ex. A at col. 23:1-6). Claim 6 further narrows claim 5 by having a thesaurus that can be supplemented by new words input by the user. (*Id.* at col. 23:7-10). Each of the dependent claims further limit the implementation of the claimed method and therefore further distance the claims from any alleged abstract idea.

3. Defendants' Alleged Abstract Ideas Ignore the Claim Language

Defendants' alleged abstract idea of "using a keyword to navigate a hierarchy." Defendants first ignore that the claims require a particular type of computerized network, a hierarchically arranged decisional network. (*Supra* §II.B.A). Unlike a simple hierarchy, a hierarchically arranged decisional network requires a user to provide inputs or responses at each node to navigate through adjacent nodes in the hierarchical arrangement. (*Id.*).

Defendants also disregard that the claims require jumping: a direct traversal from one node or vertex to another node or vertex that is not directly connected to it (*i.e.*, without traversal

through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex). (*Supra* §II.B.3). Jumping distinguishes the invention over the prior art navigation in a hierarchy, which requires moving to adjacent nodes. (Ex. A at col. 2:22-25; col. 3:35-43; Ex. H at 2; Ex. J at 2; Ex. L at 2; Ex. F at 6-8). Defendants' alleged abstract idea would only result in navigating to adjacent nodes in the hierarchy using keywords, and would not result in directly traversing to non-adjacent nodes. By failing to consider the jumping limitation, Defendants' mischaracterize the importance of jumping nodes in a computerized hierarchically arranged decisional network, which distinguished the invention over the prior art. *McRO*, 837 F.3d at 1313, 1314-1315.

Defendants' alleged abstract idea also disregards that the nodes in the hierarchy must be associated with keywords. Nodes in a hierarchically arranged decisional network would not normally have keywords associated with the nodes. In a typical hierarchically arranged decisional network, navigation occurs by responding at the node of the user's current location resulting in moving to an adjacent node based on the user input/response at the node. (Ex. H at 2; Ex. J at 2; Ex. L at 2; Ex. F at 6-8). On the other hand, the claimed invention takes into account keywords associated with non-adjacent nodes (i.e., nodes not adjacently connected to the current location of the user) in deciding where to navigate. (Ex. A at col. 22:47-53, col. 24:5-6). Using a keyword in a typical hierarchy would therefore not result in navigating the hierarchy because adjacent nodes are not associated with keywords.

Defendants point to the invention running on a generic computer as supporting patent ineligibility. First, the claim does not operate on a generic computer because the computer must be operating a hierarchically arranged decisional network. Furthermore, the fact that the invention can run on a general purpose computer does not "doom[] the claims" because the

claims “are directed to an improvement in the functioning of a computer,” and not “adding conventional computer components to a well-known business practice.” *Enfish*, 822 F.3d at 1338. This is not a situation in which “general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation.” *Id.* at 1339; *also McRO*, 837 F.3d at 1314 (“While the rules are embodied in computer software that is processed by general-purpose computers, Defendants provided no evidence that the process previously used by animators is the same as the process required by the claims.”). Instead, this invention is one that can only exist on computers and requires computers operating a particular network.

Defendants alleged abstract idea is therefore improper because it is at such a high level of abstraction as to be untethered to the language of the claims. *Enfish*, 822 F.3d at 1337 (*citing Alice*, 134 S.Ct. at 2354); *also McRO*, 837 F.3d at 1313.

4. The Claims Are Distinguishable from Cases Found by the Courts to be Directed to an Abstract Idea

Defendants argue that all claims of the ‘367 patent are similar to those “routinely” found to be abstract by the Federal Circuit. However, as explained below, the claims are distinguishable from the cases cited by Defendants and are instead similar to the cases in which the Federal Circuit held claims directed to patent eligible subject matter.

a. The Claims Are Not Directed to Information Management

Defendants’ argument that the claims are directed to “information management or organization” or “collecting information, analyzing it, or displaying certain results of the collection and analysis” misses the focus of the claims. (Def’ts Br. at 12). The claims are not directed to collecting information, analyzing it, or displaying results of the collection. The claims in the preamble start with the information collected, managed, and organized in a particular manner, a “hierarchical” arrangement of nodes. (Ex. A at col. 22:47-49, col. 23:11 –

col. 24:1). The purpose of the claims is not to analyzing or displaying collected information in the network. Instead, the purpose of the claims is to navigate the nodes of a hierarchically arrange decisional network in a more efficient manner to achieve a goal node. (*Id.*; *id.* at col. 2:9-12). Navigating nodes a particular network is unrelated to organizing/analyzing data in a network.

b. The Claims Specify Implementation Details for the Steps and are Not Result Oriented

Defendants' argument that the claims are entirely functional for simply "receiving an input," "identifying at least one node," and "jumping to the at least one node" disregards the claim language for how these steps are accomplished. The claims provide specific implementation details for each of these steps.

"Receiving an input" is an excerpt from the term "receiving [at a node in a hierarchically arranged decisional network] an input from a user of the network, the input containing at least one word identifiable with at least one keyword from among multiple keywords." (Ex. A at col. 22:47-53). The claim requires a particular user who provides the input (user of a hierarchically arranged decisional network), provides the location where the input is received (at a current node of the user in the hierarchically arranged decisional network), and what the input is (one or more words identifiable with a keyword that is associated with nodes in the hierarchically arranged decisional network). (*Id.*). Claim 7 additionally requires that the input from the user is "a response to a verbal description" associated with the first node. (*Id.* at col. 24:3-4).

"Identifying at least one node" is an excerpt from the term "identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword." (*Id.* at col. 22:54-56). The claim requires that the node identified by the system must be one other than the node where the user provided the input, must be within the

hierarchically arranged decisional network but not directly connected to the node where the user provided the input, and must be associated with at least one keyword input by the user.

“Jumping to the at least one node” is in response to identifying at least one node. Jumping to the at least one node also requires the system to directly traverse from one node or vertex to another node or vertex that is not directly connected to it (*i.e.*, without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex). (*Supra* §II.B.2). Defendants’ overbroad and oversimplified description of the claims is therefore improper and untethered to the claim language. *Enfish*, 822 F.3d at 1337; *also McRO*, 837 F.3d at 1313.

c. The Claimed Invention Does Not Perform a Well-Known Concept Such as Looking Up Terms in a Textbook Index

Defendants’ argument that the invention is simply looking up terms in a textbook index disregards the claim language and the prosecution history discussing the particular network to which the invention is applicable. (See Dkt. No. 13 at 15-16). The claimed invention is directed to a new way of navigating a computerized system of multiple nodes interconnected in a hierarchically arranged decisional network in which a user provides inputs or responses at each node to navigate through adjacent nodes in the hierarchical arrangement. In these systems, the user was trapped within the structure of the system and could only move up or down the hierarchy through adjacent nodes. The claimed invention, in addition to the hierarchical arrangement in which users input information to navigate up or down adjacent nodes, requires nodes associated with keywords that allow the user to input words to directly traverse from one node or vertex to another node or vertex that is not directly connected to it (*i.e.*, without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex). In other words, the claimed

invention provides a new method that overrides the prior art methodology for navigating a hierarchically arranged decisional network.

Defendants' textbook index argument does not consider that the invention requires implementation within a hierarchically arranged decisional network and solves a problem with navigating those networks as described above. Defendants' textbook argument is identical to the obviousness argument raised by the examiner that was overcome during the prosecution history. Like the prior art raised in the prosecution history, a textbook is neither hierarchically arranged nor a decisional network. The textbook example does not have any nodes nor does the textbook have nodes associated with keywords, seek inputs from users, or respond to inputs from users. Even applying the textbook example to a hierarchically arranged decisional network does not achieve the claimed invention. As explained during the prosecution history with respect to the Pooser reference, allowing a user to look at the entire structure (e.g., a textbook index) and select a relevant node to traverse the system fails to meet the limitations of keyword association with a particular node, the system at a node receiving an input from a user, or the system jumping to a node associated with a keyword. (Ex. H at 9-10). At most, Defendants' argument is an obviousness argument of combining (without any motivation) a textbook index with a hierarchically arranged decisional network rather than an argument directed to patent eligibility under §101.

d. The Claims Do Not Require a Reference to Hardware

Defendants contention that "claims reciting software functions with no reference to hardware are directed to abstract ideas" is contrary to Federal Circuit law. (Def'ts Br. at 17). The Federal Circuit in *Enfish* said the contrary:

Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. Software can

make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route.

822 F.3d at 1335. Furthermore, the fact that the invention can run on a general purpose computer does not “doom[] the claims.” *Enfish*, 822 F.3d at 1338; *also McRO*, 837 F.3d at 1307-08 (claims were held to be directed to patent eligible subject matter even though the claims did not reference any hardware in the claims and could be implemented on a general purpose computer). Rather than whether there is a reference to hardware, the relevant question is “whether the focus of the claims is on the specific asserted improvement in computer capabilities... or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish*, 822 F.3d at 1336.

Regardless, this case is distinguishable from *Synopsys, Inc. v Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed.Cir. 2016), in which the parties did not construe the claims as requiring a computer to implement the invention. The claims of the ‘367 patent require implementation on a particular type of computer system. Specifically, the claims require implementation on a computerized system of multiple nodes interconnected in a hierarchically arranged decisional network in which a user provides inputs or responses at each node to navigate through adjacent nodes in the hierarchical arrangement. (*Supra* §II.B.1). Hardware is therefore explicitly required by the claims.

B. The Claims Have Material, Non-Generic Limitations that Render the Claims Patent Eligible Under §101

Even if the Court were to find that Defendants’ alleged abstract idea is applicable to the claims in the patent-in-suit, the claims are patent eligible under the second step of the §101 analysis. The second step of a §101 analysis “examine[s] the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into

a patent-eligible application.” *Alice*, 134 S.Ct. at 2357. Each of the asserted claims have material, non-generic limitations demonstrating an inventive concept that render the claims eligible under §101 and do not preempt every application of the abstract idea (using a keyword to navigate a hierarchy) or any variant raised by Defendant. *DDR Holdings*, 773 F.3d at 1259; *McRO*, 837 F.3d at 1315.

The claims all require “jumping,” which is not how hierarchies are navigated. Using keywords in a hierarchy would just result in navigating to adjacent nodes in the same manner as a typical hierarchy. As explained in the patent examples, the prior art used keywords to navigate the hierarchy; however, the users were trapped in navigating to adjacent nodes. (Ex. A at col. 4:22-50). “Jumping” to a node, as used in the patent, navigates differently than using keywords to navigate a hierarchy.

The claims also require nodes in the computerized hierarchically arranged decisional network that are associated with keywords. The keyword is then used to identify a relevant node. As explained above, this is not typical of a hierarchically arranged decisional network. In a prior art hierarchically arranged decisional network, keywords can be used at particular nodes to decide at that node which direction the user moves in the hierarchy. Nodes in a computerized hierarchically arranged decisional network are not associated with keywords and the keywords are not used to identify other relevant nodes.

The claims are also not simply automating conventional activity by making the prior art better solely by doing it on a computer. *McRO*, 837 F.3d at 1314. The claimed invention is directed to a problem associated with navigating computerized hierarchically arranged decisional networks. Rather than being bound by the prior method of navigating solely to adjacent nodes,

the claims overlay a new method of navigating the particular type of network. The claims are therefore not solving a pre-computer problem by simply using a computer.

Because the claims do not preempt using a keyword to navigate a hierarchy, the claims can be designed around. *McRO*, 837 F.3d at 1315. Keywords can be used to navigate to solely adjacent nodes, or to navigate without jumping. Nodes also do not have to be associated with keywords and instead navigating can be accomplished by inputting keywords at a particular node and determining navigation without identifying a node associated with the keyword. Keywords can be used to navigate hierarchies that are not computerized hierarchically arranged decisional network. The material limitations, considered both individually and as an ordered combination, therefore significantly narrow the scope of the claims from the alleged “abstract idea” and are patent eligible under §101. *Bascom*, 827 F.3d at 1350, 1352; *McRO*, 837 F.3d at 1315.

The claims therefore do not merely recite the alleged abstract ideas “along with the requirement to perform it on the internet, or to perform it on a set of generic computer components.” *Bascom*, 827 F.3d at 1350. “Nor do the claims preempt all ways” of using keywords to navigate a hierarchy. *See id.*; *also McRO*, 837 F.3d at 1315. As explained above, the limitations of the claims in the ‘379 patent, when viewed individually and as an ordered combination, provide an “inventive concept” that addresses a particular problem at its inception. It was unique and not purely conventional. The claims are therefore patent eligible under the second step of the §101 analysis.

CONCLUSION

For the foregoing reasons, Guada Technologies LLC respectfully requests that this Court deny Defendants’ §101 Motions.

Dated: January 12, 2017

Respectfully submitted,

/s/ David R. Bennett

By: David R. Bennett
DIRECTION IP LAW
P.O. Box 14184
Chicago, IL 60614-0184
Telephone: (312) 291-1667
e-mail: dbennett@directionip.com
ATTORNEY FOR PLAINTIFF
GUADA TECHNOLOGIES LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served on January 12, 2017, to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5.

/s/David R. Bennett
David R. Bennett